

IN THE CLAIMS:

1. An external fixation device comprising:
 - a frame assembly including:
 - a first arc segment for interconnection to a first bone portion; and
 - a second arc segment for interconnection to a second bone portion;
 - the first arc segment coupled to the second arc segment for relative rotation; and
 - an articulating module attached to the frame assembly, the articulating module including:
 - a central member;
 - a first pivot segment coupled to the central member for driven rotation about a first pivot axis; and
 - a second pivot segment coupled to the central member for driven rotation about a second pivot axis, the second pivot axis being substantially parallel to the first pivot axis.

2. A frame assembly for an external fixation device,
the frame assembly comprising:

a first arc segment for interconnection to a first
bone portion; and

a second arc segment for interconnection to a second
bone portion;

the first arc segment coupled to the second arc
segment for controlled relative rotation.

3. The frame assembly for an external fixation device of Claim 2, wherein the first and second arc segments are concentrically arranged such that the first and second segments define inner and outer arc segments, respectively.

4. The frame assembly for an external fixation device of Claim 2, further comprising a drive unit attached to one of the first and second arc segments for rotatably driving the second arc segment relative to the first arc segment.

5. The frame assembly for an external fixation device of Claim 4, wherein the drive unit is attached to the second arc segment.

6. The frame assembly for an external fixation device of Claim 5, wherein the first arc segment defines a plurality of teeth and the drive unit includes a worm gear meshingly engaging the plurality of teeth.

7. The frame assembly for an external fixation device of Claim 6, wherein the plurality of teeth are defined on an outer perimeter of the first arc segment.

8. The frame assembly for an external fixation device of Claim 2, wherein each of the first and second arc segments define complete circles.

9. A method of correcting a rotational deformity or malunion of a bone having a longitudinal axis, the method comprising the steps of:

 providing an external fixation device including a frame assembly with a first arc segment coupled to a second arc segment;

 interconnecting the first arc segment to a first bone portion;

 interconnecting the second arc segment to a second bone portion;

 rotating the first arc segment relative to the second arc segment.

10. The method of correcting a rotational deformity or malunion of a bone having a longitudinal axis of Claim 9 wherein the step of rotating the first arc segment relative to the second arc segment includes the step of rotating the first arc segment relative to the second arc segment within a plane generally parallel to the longitudinal axis.

11. The method of correcting a rotational deformity or malunion of a bone having a longitudinal axis of Claim 9, wherein the first arc segment includes a first radius of curvature having a center of curvature and wherein the step of interconnecting the first arc segment to a first bone portion includes the step of positioning the center of curvature substantially along the longitudinal axis.

12. An articulating module for an external fixation device, the articulating module comprising:

a central member;

a first pivot segment coupled to the central member for driven rotation about a first pivot axis; and

a second pivot segment coupled to the central member for driven rotation about a second pivot axis, the second pivot axis being substantially parallel to the first pivot axis.

13. The articulating module for an external fixation device of Claim 12, wherein the central member includes first and second driven portions, the first pivot segment includes a first drive member engaged with the first driven portion and the second pivot segment include a second drive member engaged with the second driven portion.

14. The articulating module for an external fixation device of Claim 13, therein the first and second driven portions both define a plurality of teeth.

15. The articulating module for an external fixation device of Claim 14, wherein the first and second drive members include first and second worm gears meshingly engaging e first and second pluralities of teeth, respectively.

16. The articulating module for an external fixation device of Claim 14, wherein the central member is unitarily formed.

17. The articulating module for an external fixation device of Claim 16, wherein the first plurality of teeth is oriented substantially parallel to the second plurality of teeth.